

**Notice of Allowability**

**Application No.**

10/649,899

**Examiner**

Man Phan

**Applicant(s)**

KOBAYASHI, YOSHIKAZU

**Art Unit**

2619

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed 8/13/2007.
2. ☒ The allowed claim(s) is/are 2-4, 6-21, 24-31 (Claims are renumbered as 1-27 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Reasons for allowance*

1. This communication is in response to applicant's 08/13/2007 amendment in the application of Kobayashi for a "Bridge apparatus and bridge method" filed 08/28/2003. This application claims foreign priority based on the application 288893/2002 filed October 01, 2002 in Japan. The amendment and response has been entered and made of record. Claims 1, 5, 22-23 have been canceled per applicant's request, and claims 2, 3, 6, 30, 31 have been amended to better point out and more distinctly claim subject matter comprising the invention.
2. Claims 2-4, 6-21, 24-31 are allowable as evident by applicant's amendment (Claims are renumbered as 1-27 respectively).
3. The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or suggest wherein a cache table in which session data having high priorities are preregistered; and a plurality of first FIFO queues corresponding to priorities, wherein the transmitter includes a header comparator for, upon the reception of a transmission request for the frame to be relayed from the bridging unit to the first device driver unit, searching the cache table and extracting a priority based on headers included in a second to a fourth OSI layer of the frame, and for adding the transmission request to one of the first FIFO queues in accordance with the priority that is extracted, and a synthesization unit for, in accordance with a priority for the first FIFO queue, outputting the transmission request from the first FIFO queue to the first device driver unit; wherein a first cache table, in which first session data are

Art Unit: 2619

predesignated; a second cache table, used when a session is established; a first FIFO queue; and a second FIFO queue, wherein the middleware unit includes a first header comparator for, when a transmission request is issued for the frame to be relayed from the bridging unit to the first device, extracting second session data from headers of a second to a fourth OSI layer in the frame and, when the second session data are registered in the second cache table, adding the transmission request to the first FIFO queue; for, when the second session data are registered neither in the first cache table nor in the second cache table and the frame to be relayed is a specific, predesignated frame, registering the second session data in the second cache table and adding the transmission request to the first FIFO queue; for, when the second session data are registered in the first cache table but not in the second cache table and the frame is not a specific, predesignated frame, adding the transmission request to the second FIFO buffer; or for, when the second session data are registered neither in the first nor the second cache tables, adding the transmission request to the second FIFO queue, and a synthesization unit for outputting to the first device driver unit, in the named order, the transmission requests in the first FIFO queue and in the second FIFO queue; and wherein a cache table in which session data are preregistered; a first FIFO queue for the transmitter; and a second FIFO queue for the receiver, wherein the transmitter includes a first header comparator for, upon the reception of a transmission request for the first frame to be relayed from the bridging unit to the first device driver unit, searching the cache table and extracting a first priority, based on headers that are included in a second to a fourth OSI layer in the first frame, and for, in accordance with the first priority, adding the transmission request for the first frame to the first FIFO queue, and a first synthesization unit for transmitting, in accordance with the first priority, the transmission request from the first FIFO

Art Unit: 2619

queue to the first device driver unit, and wherein the receiver includes a second header comparator for, upon the reception of a bridging request for the second frame, searching the cache table and extracting a second priority, based on headers that are included in a second to a fourth OSI layer in the second frame, and, for, in accordance with the second priority, adding the bridging request for the second frame to the second FIFO queue, and a second synthesization unit for transmitting, in accordance with the second priority, the bridging request from the second FIFO queue to the bridging unit, as specifically recited in the claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Man U. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached Monday through Friday from 6:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

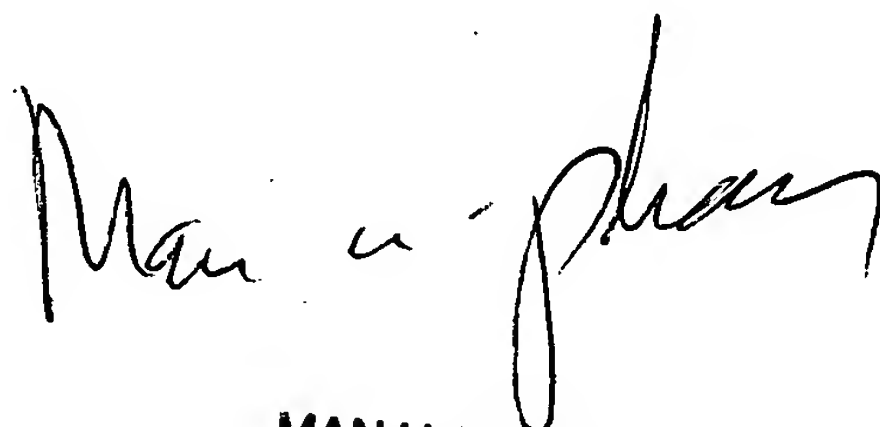
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Art Unit: 2619

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

October 12, 2007

A handwritten signature in black ink, appearing to read "Man U. Phan", written in a cursive style.

MAN U. PHAN  
PRIMARY EXAMINER